

CLAIMS

5 1. A refrigerant composition which comprises:

(a) pentafluoroethane, octafluoropropane,  
trifluoromethoxydifluoromethane or hexafluoro-cyclopropane, or a mixture of two or  
more thereof, in an amount from 5 to 60% based on the weight of the composition,

10 (b) pentafluoroethane, 1,1,1,2- or 1,1,2,2-tetrafluoroethane, 1,1-  
difluoroethane, trifluoromethoxypentafluoroethane, 1,1,1,2,3,3,3-heptafluoropropane  
or 1,1,1,2,2,3,3-heptafluoropropane, or a mixture of two or more thereof, in an  
amount from 30 to 94 % by weight based on the weight of the composition and

15 (c) an unsubstituted hydrocarbon of the formula  $C_nH_m$  in which n is at  
least 4 and m is at least  $2n-2$ , other than methyl propane, in an amount from 1 to 10%  
by weight based on the weight of the composition.

2. A composition according to claim 1 in which component (c) is present  
in an amount from 2 to 6% by weight based on the weight of the composition.

3. A composition according to claim 2 in which component (c) is present  
in an amount from 3 to 4% by weight based on the weight of the composition.

20 4. A composition according to any one of the preceding claims which  
contains one or more of pentafluoroethane, 1,1,1,2-tetrafluoroethane and  
octafluoropropane.

5. A composition according to any one of the preceding claims in which  
component (a) and (b) are both pentafluoroethane which is present in an amount from  
25 90 to 99% by weight based on the weight of the composition.

6. A composition according to any one of the preceding claims in which  
component (a) comprises octafluoropropane and component (b) is 1,1,1,2-  
tetrafluoroethane.

30 7. A composition according to claim 6 in which the octafluoropropane is  
present in an amount from 5 to 15% by weight based on the weight of the  
composition.

8. A composition according to claim 7 in which the octafluoropropane is present in an amount from 7 to 12% by weight based on the weight of the composition.

5 9. A composition according to any one of the preceding claims which comprises from 5 to 20% by weight based on the weight of the composition of pentafluoroethane.

10 10. A composition according to any one of the preceding claims in which component (b) is present in an amount from 75% to 90% by weight based on the weight of the composition.

11. A composition according to any one of the preceding claims in which component (c) possesses 4 or 5 carbon atoms.

12. A composition according to claim 11 in which component (c) is n-butane.

13. A composition according to claim 12 which comprises:

15 (a) pentafluoroethane, octafluoropropane, trifluoromethoxydifluoromethane or hexafluoro-cyclopropane, or a mixture of two or more thereof, in an amount of at least about 35% based on the weight of the composition,

20 (b) 1,1,1,2- or 1,1,2,2-tetrafluoroethane, 1,1-difluoroethane, trifluoromethoxypentafluoroethane, 1,1,1,2,3,3-heptafluoropropane or a mixture of two or more thereof, in an amount of at least about 30% by weight based on the weight of the composition and

(c) n-butane, in an amount from about 2.3 to about 4% by weight based on the weight of the composition.

25 14. A composition according to claim 13 in which component (c) is present in an amount from about 2.3 to 3.5% by weight based on the weight of the composition.

15. A composition according to claim 13 in which component (a) is pentafluoroethane.

30 16. A composition according to claim 15 in which component (a) is present in an amount from 35 to 65% by weight based on the weight of the

composition.

17. A composition according to claim 16 in which component (a) is present in an amount from 40 to 55% by weight based on the weight of the composition.

5 18. A composition according to claim 17 in which component (a) is present in an amount from 45 to 52% by weight based on the weight of the composition.

19. A composition according to claim 13 in which component (b) is 1,1,1,2-tetrafluoroethane.

10 20. A composition according to claim 19 in which component (b) is present in an amount from 35 to 60% by weight based on the weight of the composition.

21. A composition according to claim 20 in which component (b) is present in an amount from 45 to 60% by weight based on the weight of the composition.

15 22. A composition according to claim 21 in which component (b) is present in an amount from 47.5 to 55% by weight based on the weight of the composition.

20 23. A composition according to claim 13 which comprises a further component.

24. A composition according to claim 13 which comprises (a) pentafluoroethane in an amount of about 46.5% by weight (b) 1,1,1,2-tetrafluoroethane in an amount of about 50% by weight and (c) n-butane in an amount of about 3.5% by weight.

25 25. Use of a composition as claimed in claim 1 as a refrigerant in a refrigeration apparatus.

26. The process for producing refrigeration which comprises condensing a composition as claimed in claim 1 and thereafter evaporating the composition in the vicinity of a body to be cooled.

30 27. A refrigeration apparatus containing, as refrigerant, a composition as claimed in claim 1.